

# **B.Sc. VI Semester Examination-2021**

**Subject- Botany (Hons)**

**Paper – CC-13**

**Genetics and Plant Breeding**

**Full Marks –40**

**Time – 2 hrs**

1. Answer any eight of the following:-

5x8=40

- a) Explain the Law of Independent Assortment in the context of Mendel's dihybrid cross.
- b) Describe lethal factor with one suitable example.
- c) Comment on Penetrance and Expressivity.
- d) Describe the phenomenon of linkage and mention its types.
- e) Write a short note on different types of aneuploidy.
- f) Describe the different types of translocation with suitable diagram.
- g) How non-ionizing radiation causes gene mutation?
- h) Discuss the merits and demerits of pure line selection.
- i) Mention the characteristic features of heterosis.
- j) Briefly discuss the applications of mutation breeding.